

Serial No. 09/884,231

Filed: June 19, 2001

AMENDMENTS TO THE CLAIMS

The listing of Claims will replace all prior versions and listings of the Claims in the application:

Listing of Claims

1. (Currently Amended) A method of making a woven spider comprising selecting a thread of a cloth from which the spider is to be woven, wrapping an electrical conductor around the selected thread and weaving the wrapped thread at a selected location in the cloth to serve as part of the weave of the cloth ~~in place of an unwrapped thread~~.
2. (Previously Amended) A method of making a moving coil transducer comprising wrapping an electrical conductor around a thread and weaving the wrapped thread at a selected location in the cloth so that the wrapped thread is a flex locus of the cloth, after weaving the wrapped thread at the selected location in the cloth, forming the cloth into a spider, incorporating the spider into the moving coil transducer and making electrical contact to a moving coil of the moving coil transducer through the electrical conductor wrapped around the thread.
3. (Previously Amended) The method of claim 2 wherein weaving the wrapped thread at the selected location in the cloth comprises weaving the wrapped thread at the selected location with a float, and forming the cloth into a spider comprises forming a region of the cloth adjacent the float as a perimeter of the spider.
4. (Previously Amended) The method of claim 3 wherein wrapping the selected thread with the electrical conductor comprises wrapping multiple threads with multiple electrical conductors and weaving the wrapped thread at the selected location comprises weaving the multiple wrapped threads at a single shed or course in the cloth.
5. (Previously Amended) The method of claims 3 and further comprising, after wrapping multiple threads with electrical conductors and before weaving the multiple wrapped threads at a single shed or course in the cloth, twisting the multiple wrapped threads together.

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6. (Previously Amended) The method of claim 3 and further comprising, after wrapping the selected thread with an electrical conductor and before weaving the wrapped thread at the selected location in the cloth, treating the wrapped thread with a first substance to render the wrapped thread relatively impervious to a second substance, and then, after weaving the wrapped thread at the selected location in the cloth, treating the cloth with the second substance.
7. (Previously Amended) The method for claims 6 wherein treating the wrapped thread with a first substance comprises treating the wrapped thread with a wax.
8. (Previously Amended) The method of claim 7 wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.
9. (Previously Amended) The method of claim 6 wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.
10. (Previously Amended) The method of claim 4 and further comprising, after wrapping the multiple threads with multiple electrical conductors and before weaving the wrapped threads at the selected location in the cloth, treating the wrapped threads with a first substance to render the wrapped threads relatively impervious to a second substance, and then, after weaving the wrapped threads at the selected location in the cloth, treating the cloth with the second substance.
11. (Previously Amended) The method of claim 10 wherein treating the wrapped threads with a first substance comprises treating the wrapped threads with a wax.
12. (Previously Amended) The method of claims 11 wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.
13. (Previously Amended) The method of claim 10 wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.
14. (Previously Amended) The method of claim 5 and further comprising, after wrapping the multiple threads with electrical conductors and before weaving the wrapped threads at the selected location in the cloth treating the wrapped threads with a first substance to render the

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wrapped threads relatively impervious to a second substance, and then, after weaving the wrapped threads at the selected location in the cloth, treating the cloth with the second substance.

15. (Previously Amended) The method of claim 14 wherein treating the wrapped threads with a first substance comprises treating the wrapped threads with a wax.

16. (Previously Amended) The method of claim 15 wherein treating the cloth with the second substance comprises treating the cloth with the phenolic resin.

17. (Previously Amended) The method of claim 14 wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.

18. (Previously Amended) A method of making a moving coil transducer comprising wrapping an electrical conductor around a thread and weaving the wrapped thread at a selected location in a cloth, after weaving the wrapped thread at the selected location in the cloth, forming the cloth into a spider, incorporating the spider into the moving coil transducer and applying a conductive adhesive to at least one of the electrical conductors wrapped around the thread and a lead of a moving coil of the moving coil transducer to make electrical contact with the moving coil transducer through the electrical conductor wrapped around the thread and to form a structural joint between the spider and the moving coil.

19. (Previously Amended) The method of claim 4 wherein making electrical contact to the moving coil of the transducer through the electrical conductor wrapped around the thread comprises applying a conductive adhesive to at least one of the electrical conductor wrapped around the thread and a lead of the moving coil to make electrical contact and to form a structural joint between the spider and the moving coil.

20.-27. (Cancelled)

28. (Previously Amended) A method of making a woven spider comprising selecting a thread, helically wrapping an electrical conductor around the selected thread and weaving the selected thread that is wrapped with the electrical conductor into a woven cloth to form a single shed or course of the woven cloth that forms the woven spider.

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29. (Previously Added) The method of claim 28, further comprising leaving a determined length of the selected thread that is wrapped with the electrical conductor positioned adjacent to the woven cloth in a determined position so that the selected thread that is wrapped with the electrical conductor extends beyond an edge of the woven cloth when the woven cloth is molded and trimmed to a desired shape to form the woven spider.

30. (Previously Added) The method of claim 28, wherein weaving comprises forming an integral part of the woven cloth that is only the selected thread wrapped with the electrical conductor.

31. (Previously Added) The method of claim 28, wherein weaving comprises positioning the selected thread wrapped with the electrical conductor so that the selected thread with the electrical conductor is a flex locus of the woven cloth.

32. (Previously Added) The method of claim 28, further comprising leaving a determined length of the thread that is wrapped with the electrical conductor unwoven and trimming the woven cloth to create a central opening and a desired outer circumference of the woven cloth so that the unwoven determined length of the selected thread that is wrapped with the electrical conductor extends beyond the desired outer circumference of the woven cloth to readily provide electrical connection of the electrical conductor to a loudspeaker terminal.

33. (Previously Amended) The method of claim 28, further comprising electrically coupling the electrical conductor to a voice coil wire with a conductive adhesive, and applying a non-conductive adhesive between the woven spider and a coil former before the conductive adhesive has cured to cover the conductive adhesive and join the woven spider and the coil former.

34. (Previously Added) A method of making a woven spider comprising selecting a thread, helically wrapping an electrical conductor around the selected thread, treating the thread wrapped with the electrical conductor with a first substance to render the wrapped thread relatively impervious to a second substance, weaving the treated thread that is wrapped with the electrical conductor into a woven cloth that forms the woven spider and treating the woven cloth with the second substance after the thread wrapped with the electrical conductor is woven into and forms part of the weave of the woven cloth.

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35. (Previously Added) The method of claim 34, wherein weaving the thread wrapped with the electrical conductor comprises weaving the selected thread wrapped with the electrical conductor to serve as part of the cloth in place of an unwrapped thread.
36. (Previously Added) The method of claim 34, wherein weaving the thread wrapped with the electrical conductor comprises placing the thread wrapped with the electrical conductor at a flex locus of the cloth.
37. (Previously Added) The method of claim 34, wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.
38. (New) The method of claim 1, wherein weaving the wrapped thread further comprises weaving the wrapped thread to serve as part of weave of the cloth in place of an unwrapped thread.
39. (New) The method of claim 1, wherein weaving the wrapped thread comprises placing the wrapped thread at a flex locus of the cloth.
40. (New) The method of claim 1 and further comprising, after wrapping the electrical conductor around the selected thread and before weaving the wrapped thread into the cloth, treating the wrapped thread with a first substance to render the wrapped thread relatively impervious to a second substance, and then, after weaving the wrapped thread at the selected location in the cloth, treating the cloth with the second substance.
41. (New) The method of claim 40, wherein treating the cloth with the second substance comprises treating the cloth with a phenolic resin.
42. (New) The method of claim 28 and further comprising, after helically wrapping the electrical conductor around the selected thread and before weaving the selected thread, treating the selected thread wrapped with the electrical conductor with a first substance to render the selected thread relatively impervious to a second substance, and then, after weaving the selected thread at the selected location in the woven cloth, treating the woven cloth with the second substance.

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43. (New) The method of claim 42, wherein treating the woven cloth with the second substance comprises treating the cloth with a phenolic resin.